

CLAIMS

1. A process for depressing corrosion of a metal material of a reactor while producing 1,1,1,3,3-pentafluoropropane, wherein said process comprises:

a liquid-phase reaction step for fluorination of
5 1,1,1,3,3-pentahalopropane with HF, wherein at least one of the halogen atoms in said 1,1,1,3,3-pentahalopropane is not F, wherein said 1,1,1,3,3-pentahalopropane is fluorinated in the presence of antimony pentahalide as a catalyst in said reactor to obtain a reaction mixture comprising at least 1,1,1,3,3-
10 pentafluoropropane and antimony pentahalide as the catalyst,

wherein the fluorination is conducted at a reaction temperature at less than 50°C while HF exists in a reaction system in an amount of at least 5 times by mole as large as an amount of said antimony pentahalide; and

15 depressing corrosion of the metal material of said reactor.

2. The process for depressing corrosion of a metal material of a reactor of claim 1, wherein said metal material comprises a nickel-chromium-molybdenum-tungsten alloy.

3. The process for depressing corrosion of a metal material of a reactor of claim 1, wherein said metal material is a Ni-based material which has corrosion resistance.

4. The process for depressing corrosion of a metal material of a reactor of claim 1, wherein said metal material comprises 20.0 - 22.5 of Cr, 12.5 - 14.5 of Mo, 2.5-3.5 of W, 2.0-6.0 of Fe, ≤ 0.010 of C, ≤ 0.50 of Mn, ≤ 0.08 of Si, \leq
5 0.35 of V, ≤ 0.02 of P, ≤ 0.02 of S, and the balance being Ni.